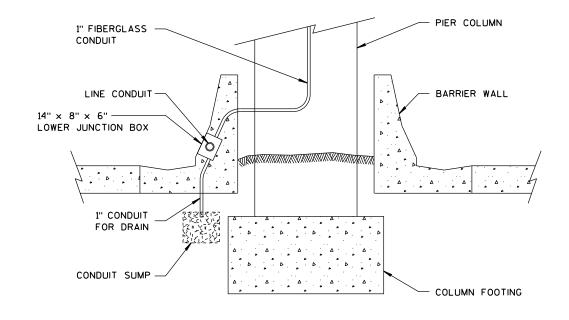


# TYPICAL UNDERDECK LIGHTING INSTALLATION

LINE VOLTAGE	TOP JUNCTION
\$\phi\$-GROUND	BOX FUSES
120VAC	5 A
208VAC	5 A
240VAC	5 A
480VAC	3 A



SECTION "A-A"

### **GENERAL NOTES**

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

USE THIS DETAIL IN CONJUNCTION WITH THE DETAIL FOR ELECTRICAL HANDHOLE WIRING, SUBSTITUTING THE LOWER JUNCTION BOX FOR THE HANDHOLE SHOWN IN THAT DETAIL.

THE PLANS WILL SHOW WHICH CIRCUIT LEGS(S) ARE CONNECTED TO EACH INSTALLATION AND THE REQUIRED NUMBER OF LUMINAIRES.

THE UPPER JUNCTION BOX (FOR FUSE ASSEMBLIES) SHALL CONFORM TO THE APPLICABLE PROVISIONS OF SECTION 653.2.2 OF THE STANDARD SPECIFICATIONS; SHALL BE SUITABLE FOR SURFACE MOUNTING WITH EXTERNAL MOUNTING LUGS; AND SHALL HAVE A HINGED COVER, WING-NUT FASTENERS, AND PADLOCK HASP, ALL HARDWARE SHALL BE STAINLESS STEEL. FURNISH O-Z/GEDNEY YW-120603, SPRING CITY HC-12-06-04, CROUSE-HINDS WTB-120604, OR APPROVED EQUAL.

MEDIAN CONFIGURATIONS VARY; NOT ALL CASES CAN BE SHOWN IN THIS DETAIL.

WIRING FOR THE FIRST LUMINAIRE PAIR IS SHOWN IN SOLID LINES. WIRING FOR ADDITIONAL LUMINAIRE PAIRS, WHERE REQUIRED, IS SHOWN IN DOTTED LINES.

### **LEGEND**

A ,B , X , Y , Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
•	HANDHOLE GROUND LUG
0 0 0	UNFUSED LUMINAIRE
———	SINGLE POLE (IP) FUSE ASSEMBLY
•	TERMINAL
•	SPLICE
	CONDUCTOR

**ELECTRICAL DETAILS UNDERDECK LIGHTING** 

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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# **Standard Detail Drawing 10A15** (sheet a)

December 20, 2013

## Electrical Details Underdeck Lighting

### References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols. <u>Standard Spec. 659 Lighting</u>

### Bid items associated with this drawing:

<u>ITEM NUMBER</u>	DESCRIPTION	<u>UNIT</u>
659.0600	Underdeck Lighting (location)	EACH
659.1200 - 1299	Luminaires Underdeck LED (Category)	EACH

### Standardized Special Provisions associated with this drawing:

STSP	NUMBER	TITLE

659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Vendor 659.XXXX.S Lamp, Ballast, LED, Switch Disposal by Department

### Other SDDs associated with this drawing:

SDD 10A1 Electrical Handhole Wiring

SDD 10A15 Electrical Details Underdeck Lighting sheet "b" must be used in conjunction with this

drawing.

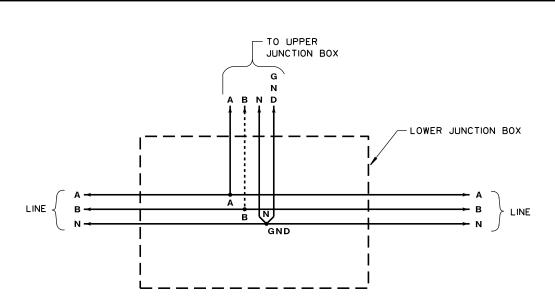
### **Design Notes:**

Use this SDD in conjunction with the SDD for Electrical Handhole Wiring. Underdeck Lighting is installed to Maintain Pavement illumination uniformity in conjunction with continuous freeway lighting, except that it may be omitted for narrow underpasses and is sometimes omitted where there is high mast lighting.

### Contact Person:

Ahmet Demirbilek (414) 220-6801

(414) 322-9606 (Mobile)



# TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

ISOLATED NEUTRAL SYSTEM 1-\$\phi\$ 120/240VAC OR 240/480VAC 3 WIRE

TO UPPER

JUNCTION BOX

LOWER JUNCTION BOX

LINE

15-4b

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**ELECTRICAL DETAILS UNDERDECK LIGHTING** 

STATE OF WISCONSIN

/S/ Ahmet Demirbilek

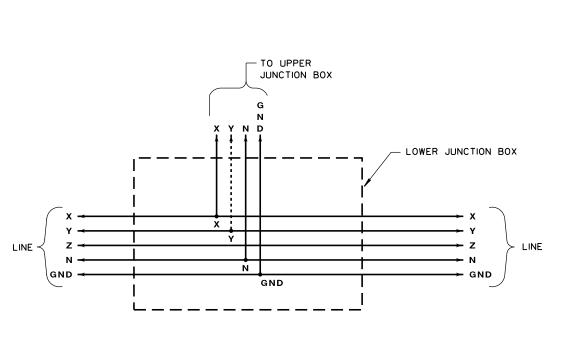
STATE ELECTRICAL ENGINEER

APPROVED

11/26/2013 DATE

FHWA

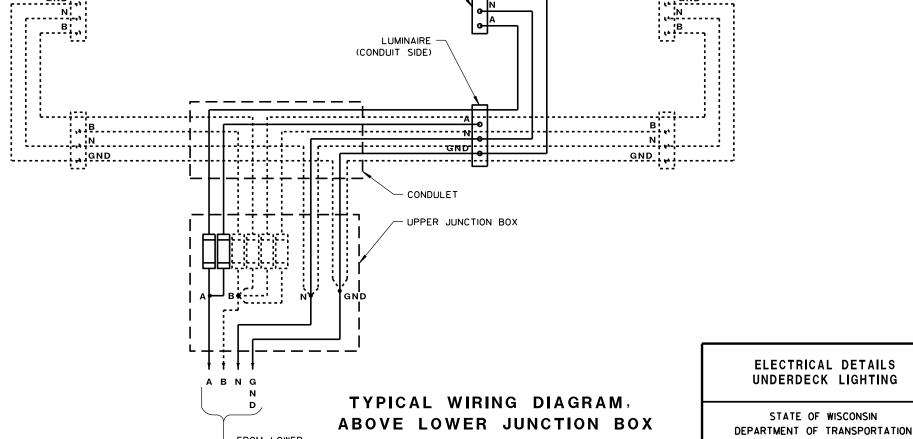
# TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX GROUNDED NEUTRAL SYSTEM 1-\$\phi\$ 240/480VAC OR 3 WIRE OR 480VAC 2 WIRE



TYPICAL WIRING DIAGRAM, LOWER JUNCTION BOX

ISOLATED NEUTRAL SYSTEM

3-\$ 208Y/120VAC OR 480Y/277VAC 4 WIRE



ANY LINE VOLTAGE OR WIRING SYSTEM

(NO. 14 AWG TAPS AND BRANCHES)

GND

LUMINAIRE (OPPOSITE SIDE)

D.D. 10

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Version 4

# **Standard Detail Drawing 10A15** (sheet b)

December 20, 2013

## Electrical Details Underdeck Lighting

### References:

<u>FDM15-5 Attachment 30.5</u> and <u>30.6</u> for conventional symbols. <u>Standard Spec. 655</u> Electrical Wiring

### Bid items associated with this drawing:

ITEM NUMBERDESCRIPTIONUNIT655.0600 - 0699Electrical Wire Lighting (AWG)EACH

### Standardized Special Provisions associated with this drawing:

STSP NUMBER TITLE

NONE

### Other SDDs associated with this drawing:

SDD 10A15 Electrical Details Underdeck Lighting sheet "a" must be used in conjunction with this drawing.

### **Design Notes:**

Refer to guidance form sheet "a" of SDD 10A15.

### **Contact Person:**

Ahmet Demirbilek (414) 220-6801

(414) 322-9606 (Mobile)